

## CLAIMS

### WHAT IS CLAIMED IS:

1. A retail point-of-sale custom cosmetic formulation dispenser,  
5 comprising:
  - a) a ingredient carrier that is mounted for translation about at least one axis;
  - b) a plurality of containers each filled with a different ingredient for a custom cosmetic formulation, and each being mounted to the  
10 ingredient carrier;
  - c) an actuator for dispensing the ingredients from the containers;
  - d) a holder for receiving and holding a package into which the custom cosmetic is to be dispensed; and
  - e) a housing for substantially enclosing the plurality of containers and  
15 the ingredient carrier, and being configured to permit viewing by a retail customer of a dispensing step performed by the machine at the retail point of sale.
2. The apparatus of claim 1, wherein the holder includes a chuck.  
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3. The apparatus of claim 1, wherein the actuator is adapted for dispensing one ingredient at a time from the containers.
4. The apparatus of claim 1, wherein an actuator is provided for each  
25 of the containers.
5. The apparatus of claim 1, wherein the housing further comprises a transparent panel.
6. The apparatus of claim 1, wherein the actuator includes a push rod  
30 that is slidingly mounted in a frame and has a free end for depressing the plunger.

7. The apparatus of claim 6, wherein the actuator further comprises at least one sensor for detecting the relative position of the push rod.

5 8. The apparatus of claim 1, further comprising a track for transferring a cosmetic package within the housing.

9. The apparatus of claim 1, wherein at least two of the containers include cellulose-based nail polish ingredients.

10 10. The apparatus of claim 3, wherein at least two of the containers include cellulose-based nail polish ingredients.

11. A retail point-of-sale custom cosmetic formulation dispenser,  
15 comprising:

- a) a rotatable structure having an outer peripheral portion and being mounted for rotation in a generally vertical plane about a generally horizontal axis;
- 20 b) a plurality of syringe barrels for containing ingredients for a custom cosmetic formulation, and being mounted generally in a spoke pattern on the outer peripheral portion of the rotatable structure;
- c) an actuator mounted in a central area of the rotatable structure for advancing a plunger within at least one of the syringe barrels for dispensing the ingredients therefrom through a nozzle;
- 25 d) at least one motor for driving the rotatable structure, the actuator or a combination thereof.

12. The apparatus of claim 11, wherein at least two of the containers include cellulose-based nail polish ingredients.

30 13. The apparatus of claim 11, further comprising an enclosure having a transparent panel.

14. The apparatus of claim 11, further comprising a holder for a package into which the ingredients are dispensed.

5 15. The apparatus of claim 11, wherein a plunger is included within each syringe barrel.

16. The apparatus of claim 11, wherein the plunger is associated with the actuator.

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17. The apparatus of claim 11, wherein the actuator includes a push rod that is slidingly mounted in a frame and has a free end for depressing the plunger.

15 18. The apparatus of claim 11, wherein the actuator further comprises at least one sensor for detecting the relative position of the push rod.

19. The apparatus of claim 11, wherein the actuator is adapted for dispensing one ingredient at a time from the containers.

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20. The apparatus of claim 11, further comprising a holder, including a chuck, for receiving and holding a package into which the custom cosmetic is to be dispensed.

25 21. A retail point-of-sale custom cosmetic formulation dispenser, comprising:

a) a frame;

b) a belt driven rotary translatable wheel having a central hole therein for defining an outer peripheral portion having a plurality of radially disposed mounting brackets attached thereto, the wheel being mounted to the frame for rotation in a generally vertical plane about a generally horizontal axis;

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- 5 c) a plurality of syringe barrels, each having a plunger and a nozzle and a longitudinal axis, and being adapted for containing ingredients for a custom cosmetic formulation, the syringe barrels being mounted on the mounting brackets on the outer peripheral portion so that the longitudinal axis of the barrels are generally radially disposed;
- 10 d) an actuator disposed at least partially within the central hole of the dial plate, the actuator including a push rod that is slidingly mounted in a mounting bracket and having a free end for depressing a plunger within at least one of the syringe barrels for dispensing the ingredients therefrom through a nozzle;
- 15 e) at least one motor for driving the dial plate, the actuator or a combination thereof; and
- f) panels removably attached to the frame for substantially enclosing the plurality of syringe barrels and the wheel, and being configured to include a transparent portion to permit viewing by a retail customer of a dispensing step performed by the machine at a retail point of sale.
- 20 22. The apparatus of claim 21, further comprising a capping device.
23. The apparatus of claim 21, further comprising a track for transferring a cosmetic package within the frame.
- 25 24. The apparatus of claim 21, wherein the actuator further comprises at least one sensor for detecting the relative position of the push rod.
25. The apparatus of claim 21, wherein at least one of the syringe barrels includes particulated sparkle effect.
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26. The apparatus of claim 21, wherein at least two of the syringe barrels include cellulose-based nail polish ingredients.

27. The apparatus of claim 21, wherein at least two of the syringe  
5 barrels include lip gloss ingredients.

28. The apparatus of claim 21, further comprising a shaker mechanism.

29. The apparatus of claim 21, wherein the package into which the  
10 ingredients are dispensed has a rounded outer surface for permitting it to roll.

30. The apparatus of claim 21, wherein the barrels are dimensioned for holding about 4 to about 32 ounces (.1 to about 1 liter) of ingredients.

15 31. A method of dispensing a custom cosmetic formulation at a retail point of sale, comprising providing an apparatus according to claim 1 and dispensing a formulation from the apparatus.

32. The method of claim 31, wherein the package includes a mixing  
20 arm that is incorporated with the package applicator tip for mixing upon tip installation.

33. A method of dispensing a custom cosmetic formulation at a retail point of sale, comprising providing an apparatus according to claim 11 and  
25 dispensing a formulation from the apparatus.

34. The method of claim 33, wherein the package includes a mixing arm that is incorporated with the package applicator tip for mixing upon tip installation.

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5           36.    The method of claim 35, wherein the package includes a mixing arm that is incorporated with the package applicator tip for mixing upon tip installation.

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